Ball Aerospace & Technologies Corp.

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Need Approval

24 AUG 2000
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Integrated Program Office
E/IP – Centre Building
Colesville Road, Suite 1450
Silver Spring, MD 20910

Attention: Ms. Barbara Polston

Subject: Request for Authorization to Release OMPS Related Data, Fall AGU

Reference: F04701-99-C-0044

In accordance with contract clause 252.204-7000 – Disclosure of Information, BATC respectfully requests that your office provides written (e-mail is sufficient) authorization for the BATC OMPS Team's (specifically, our subcontractor Raytheon) public release of information related to the referenced contract.

The requested disclosure is in the form of an abstract for a presentation at the fall meeting of the American Geophysical Union (AGU) on 15 – 19 DEC 2000. This abstract will be published in the fall. This request is just for the abstract. Any additional presentation or publication material will be submitted to your office under another letter. Please see the attached abstract.

This is the second abstract that Raytheon would like to submit for the Fall AGU. To distinguish it from the abstract that was submitted to, and approved by, the IPO months ago, the following are some of the differences. First, the earlier abstract was about the current TOMS algorithm and how it fails to meet NPOESS requirements. This paper derives from early work we did on the OMPS program. Second, the present abstract addresses the OMPS total column algorithm developed for the OMPS program, including the necessary improvements over the TOMS algorithm in order to meet NPOESS requirements. We believe it is a good idea to present it now because of a perception that NASA and NOAA may be developing or adapting their own algorithms for OMPS. This presentation should illustrate to the scientific community the excellent work and progress that has been made on total column remote sensing for NPOESS.

We apologize for the short notice. The abstract is due to the conference no later than 7 SEP 00. We would very much appreciate your decision before then.

Thank you very much for your assistance. Please contact the undersigned at (303) 939-4373 or sflahert@ball.com if I can answer any questions.

Sincerely,

Sean M. Flaherty, CPCM
Contracts Manager

Attachment

Cc: Maj.(s) E. Kang, USAF

The OMPS Total Column Algorithm: Description and Performance

C.J. Seftor[1], J.C. Larsen[1], G. Jaross[1], C. G. Wellemeyer[1], T. Swissler[2], J. V.Rodriguez, C. Wright[3]

The Ozone Mapping and Profiler Suite (OMPS) is scheduled to fly onboard the National Polar-orbiting Environmental Satellite System (NPOESS). The OMPS suite includes measurements of total column ozone that are designed to continue the long-term data set created by the Total Ozone Mapping Spectrometer (TOMS) instruments while providing measurements with increased accuracy (15 Dobson Units, DU, with a future objective of 5 DU) and precision (3 DU + 0.5% of total ozone with a future objective of 1 DU). The OMPS total column includes a nadir-looking hyperspectral ozone mapper which measures scene radiances between 300 and 380 nm. We present the algorithm part of this system, which consists of enhancements to the heritage TOMS Version 7 algorithm. In particular, we discuss the need for each algorithm enhancement as it relates to the system requirements. We will show results of simulations using both the heritage V7 TOMS and OMPS algorithms that indicate the improved performance of the OMPS system. In particular we will show that, with the OMPS algorithm, the sensor-algorithm system will meet the NPOESS-OMPS requirements and, in many instances, will provide performance close to objective.

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